

WHAT IS CLAIMED IS:

1. A ball stud comprising a spherical surface to be received by a ball socket, a threaded portion having about an 8mm or about a 5/16" thread diameter for being received by a corresponding fastener, and a wrench flat having a deck height for receiving a tool to restrain the ball stud, wherein a deck height of the wrench flat is greater than about 4.50mm.
2. The ball stud according to claim 1, wherein the deck height is less than about 10.00mm.
3. The ball stud according to claim 1, wherein the deck height is less than about 6.50 mm.
4. The ball stud according to claim 1, further comprising an upper tool receiving portion positioned at the tip of the ball stud.
5. The ball stud according to claim 4, wherein the upper tool receiving portion comprises an outer or inner hex receiving portion.
6. A ball stud comprising a spherical surface to be received by a ball socket, a threaded portion having about an 10mm or about a 3/8" thread diameter for being received by a corresponding fastener, and a wrench flat having a deck height for receiving a tool to restrain the ball stud, wherein the deck height is greater than about 5.00mm.
7. The ball stud according to claim 6, wherein the deck height is less than about 10mm.
8. The ball stud according to claim 6, wherein the deck height is less than about 8.00mm.
9. The ball stud according to claim 6, further comprising an upper tool receiving portion.
10. The ball stud according to claim 9, wherein the upper tool receiving portion comprises an inner or an outer hex receiving portion.
11. A ball stud comprising a spherical surface to be received by a ball socket, a threaded portion having about an 12mm or about a 7/16" thread diameter for being received by

- a corresponding fastener, and a wrench flat having a deck height for receiving a tool to restrain the ball stud, wherein the deck height is greater than about 6.00mm.
12. The ball stud according to claim 11, wherein the deck height is less than about 12.00mm.
  13. The ball stud according to claim 11, wherein the deck height is less than about 9.00mm.
  14. The ball stud according to claim 11, further comprising an upper tool receiving portion.
  15. The ball stud according to claim 14, wherein the upper tool receiving portion comprises an inner or an outer hex receiving portion.
  16. A ball stud comprising a spherical surface to be received by a ball socket, a threaded portion having about a 14mm, 1/2", or 9/16" thread diameter for being received by a corresponding fastener, and a wrench flat having a deck height for receiving a tool to restrain the ball stud, wherein the deck height is greater than about 6.00mm.
  17. The ball stud according to claim 16, wherein the deck height is less than about 12.00mm.
  18. The ball stud according to claim 16, wherein the deck height is less than about 10.00mm.
  19. The ball stud according to claim 16, further comprising an upper tool receiving portion.
  20. The ball stud according to claim 19, wherein the upper tool receiving portion comprises an inner or an outer hex receiving portion.
  21. A ball joint assembly comprising a ball stud having a spherical surface to be received by a ball socket, a threaded portion having about an 8mm or about a 5/16" thread diameter for being received by a corresponding fastener, and a wrench flat having a deck height for receiving a tool to restrain the ball stud, wherein a deck height of the wrench flat is between about 4.50mm and 6.50 mm.

22. A ball joint assembly comprising a ball stud having a spherical surface to be received by a ball socket, a threaded portion having about an 10mm or about a 3/8" thread diameter for being received by a corresponding fastener, and a wrench flat having a deck height for receiving a tool to restrain the ball stud, wherein the deck height is between about 5.00mm and about 8.00mm.
23. A ball joint assembly comprising a ball stud having a spherical surface to be received by a ball socket, a threaded portion having about an 12mm or about a 7/16" thread diameter for being received by a corresponding fastener, and a wrench flat having a deck height for receiving a tool to restrain the ball stud, wherein the deck height is between about 6.00mm and about 9.00 mm.
24. A ball joint assembly comprising a ball stud having a spherical surface to be received by a ball socket, a threaded portion having about a 14mm, 1/2", or 9/16" thread diameter for being received by a corresponding fastener, and a wrench flat having a deck height for receiving a tool to restrain the ball stud, wherein the deck height is between about 6.00mm and about 10.00 mm.
25. A motor vehicle having a ball joint assembly comprising a ball stud having a spherical surface to be received by a ball socket, a threaded portion having about an 10mm or about a 3/8" thread diameter for being received by a corresponding fastener, and a wrench flat having a deck height for receiving a tool to restrain the ball stud, wherein the deck height is between about 5.00mm and about 8.00mm.
26. A motor vehicle having a ball joint assembly comprising a ball stud having a spherical surface to be received by a ball socket, a threaded portion having about an 12mm or about a 7/16" thread diameter for being received by a corresponding fastener, and a wrench flat having a deck height for receiving a tool to restrain the ball stud, wherein the deck height is between about 6.00mm and about 9.00 mm.
27. A motor vehicle having a ball joint assembly comprising a ball stud having a spherical surface to be received by a ball socket, a threaded portion having about a 14mm, 1/2", or 9/16" thread diameter for being received by a corresponding fastener,

and a wrench flat having a deck height for receiving a tool to restrain the ball stud,  
wherein the deck height is between about 6.00mm and about 10.00 mm.